

REMARKS

Claims 1-3 and 5-9 are pending. Claims 6-8 have been withdrawn from consideration. Claims 1-3 and 9 stand allowed. Claim 5 is amended herein. Support for the amendment is found at page 25, line 28 to page 26, line 14 of the specification and FIGs. 14(a) to (c).

Applicants' Response to the Claim Rejection under 35 U.S.C. §102(e)

Claim 5 stands rejected under 35 U.S.C. §102(e) as being anticipated by **Erstad**. In response thereto, applicants have amended the claims to more distinctly claim the subject matter regarded as the invention. Specifically, applicants have clarified the placement of the crosspiece-shaped conductor pattern in relation to the source regions and body contact region of the device.

Applicants respectfully submit that in light of this amendment, **Erstad** does not teach all the required limitations of amended claim 5. The Office Action points to Fig. 5 of **Erstad** as teaching a trunk-shaped main gate electrode 204 sandwiched between a source region 214 and a drain region 210 and further at least part of a crosspiece-shaped conductor pattern 206 is also sandwiched between the above source region 214 and drain region 210. Based on this disclosure the Office Action asserts that at least part of the above crosspiece-shaped conductor pattern is functioning as an effective gate electrode.

Applicants respectfully submit that the crosspiece-shaped conductor pattern 206 (118) of **Erstad** is not functioning as a gate electrode. Referring to Fig. 5 of **Erstad**, the crosspiece-shaped conductor pattern 206 is sandwiched between the N type drain region 210 and P type implant region 130. This means that the related crosspiece-shaped conductor pattern 206 (118) is

not sandwiched by the same conductivity type source and drain regions as in the above trunk-shaped main gate electrode 204 (116) which is sandwiched by the same conductivity type source and drain regions, i.e., both N type regions.

Despite the descriptions stating that the implant region (P type) 130 is electrically connected to the source region 214 (see column 8, lines 55 to 59), **Erstad** does not teach any descriptions stating that the above crosspiece-shaped conductor pattern functions as an effective gate electrode. Applicants respectfully submit that there is insufficient description in the reference to conclude that the crosspiece-shaped conductor pattern 206 (118) is functioning as an effective gate electrode.

The invention defined by claim 5 of the present application is amended herein in order to more fully clarify the distinction of applicants' invention from **Erstad**. In the current invention, referring to Figs. 14(a)-(c), a semiconductor layer serving as an active region contains both a first conductivity type (e.g., P type) body contact region (30) and a second conductivity type (e.g., N type) source (25) and drain (26) regions. Therefore, as seen in the attached Fig. 14(a), the above body contact region (30) is configured such that it contacts the above source regions "S1" and "S2".

Further, a gate electrode of a shape of asymmetric T-shape being comprised of both a trunk-shaped main gate electrode (20) and a crosspiece-shaped conductor pattern (65), is formed above said active region. As seen in the attached Fig. 14(a), the above trunk-shaped main gate

electrode (20) is formed by sandwiching it between the source region (see “S1”), formed without contacting the above crosspiece-shaped conductor pattern (65) and the drain region (see “D”).

Further, applicants note that the above crosspiece-shaped conductor pattern (65) is formed between (i) the source region (see “S2”) formed between the above crosspiece-shaped conductor pattern and the above body contact region (30) and (ii) the above drain region (see “D”).

Therefore, in the present invention defined by amended claim 5, not only the above main gate electrode (20) but also the above crosspiece-shaped conductor pattern (65) is sandwiched between the two same-conductivity type (e.g., N type in the present invention) regions. In other words, the crosspiece-shaped conductor pattern (65) is sandwiched between the N type source region (“S2”) and the N type drain region (“D”), whereby the conductor pattern (65) can serve as an effective gate electrode. See also N type source region (25) of Fig. 14(c).

Wherefore, applicants respectfully submit that the present invention as defined by amended claim 5 is not anticipated by **Erstad** since not all the limitations of the claim are recited.

In view of the aforementioned amendments and accompanying remarks, Applicants submit that the claims, as herein amended, are in condition for allowance. Applicants request such action at an early date.

Amendment under 37 C.F.R. §1.111

Serial No. 09/717,143

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If the Examiner believes that this application is not now in condition for allowance, the Examiner is requested to contact Applicants' undersigned attorney to arrange for an interview to expedite the disposition of this case.

If this paper is not timely filed, Applicants respectfully petition for an appropriate extension of time. The fees for such an extension or any other fees that may be due with respect to this paper may be charged to Deposit Account No. 50-2866.

Respectfully submitted,

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A handwritten signature in black ink, appearing to read "Michael J. Caridi", is written over the printed name and title.

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Enclosure: Fig. 14(a)-(c) (modified)